



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,858	11/26/2002	Rollie Richard Herzog	9D-20014	3381
23465	7590	04/25/2005	EXAMINER	
JOHN S. BEULICK C/O ARMSTRONG TEASDALE, LLP ONE METROPOLITAN SQUARE SUITE 2600 ST LOUIS, MO 63102-2740			PERRIN, JOSEPH L	
		ART UNIT		PAPER NUMBER
		1746		

DATE MAILED: 04/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/065,858	HERZOG ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Joseph L. Perrin, Ph.D.	1746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 22 February 2005.  
 2a) This action is FINAL.                  2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-5 and 7-17 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-5, 7-17 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
     1. Certified copies of the priority documents have been received.  
     2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
     3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

## DETAILED ACTION

### *Response to Arguments*

#### *Specification*

1. The objection of the Abstract is withdrawn in view of the amendment to the abstract.

#### *Rejections under 35 U.S.C. §§102 & 103*

2. Applicant's arguments filed 15 February 2005 have been fully considered but they are not persuasive.
3. In response to applicant's arguments that CHAMBERLIN does not disclose causing the lid to be locked when the sensed speed exceeds a first "predetermined" speed and causing the lid to be unlocked when the sensed speed is below a second "predetermined" speed different from the first speed, this is not persuasive because applicant's broad recitation of "predetermined" speeds read on any speeds and not a particular value or range of speeds. Thus, since CHAMBERLIN discloses causing the lid to be locked at any speed above a speed (for instance, 20 or 100 RPM) and causing the lid to be unlocked at any speed below a speed (for instance, 20 or 100 RPM), CHAMBERLIN anticipates applicant's claimed invention. Even if, *arguendo*, one were to construe applicant's "predetermined" speeds and specified values or ranges and/or one "predetermined" speed being greater than the other "predetermined" speed, the position is taken that CHAMBERLIN still anticipates applicant's claimed invention since the lid must be either locked or unlocked between such speeds. That is, in applicant's

Art Unit: 1746

claimed invention there is still only one threshold speed in which the lid is locked above that speed and unlocked below that speed since at any one time the lid is either locked or unlocked.

4. In response to applicant's arguments that HUANG teaches away from using Hall-effect sensors, this is not persuasive because a prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). In the instant case, HUANG discloses that it is conventional to use Hall-effect sensors in DC brushless motors (col. 1, line 12 *et seq.*) to sense rotary motor speed. Simply because HUANG may disclose that modified Hall-effect sensors ("virtual hall-effect sensor") can be used with improved properties does not negate the fact that Hall-effect sensors are conventionally used to sense motor speed. Moreover, the position is taken that the modified Hall-effect sensors ("virtual hall-effect sensor") of HUANG also read on applicant's claimed invention. It would be clear to a person of ordinary skill in the art that Hall-effect sensors are conventional in sensing speed in a brushless DC motor.

#### ***Claim Rejections - 35 USC § 102***

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
6. Claims 1-5, 7-9, 13-15 & 17 are rejected under 35 U.S.C. 102(e) as being anticipated by CHAMBERLIN. Re claims 1-2, 5 & 7-9, CHAMBERLIN discloses a

rotary shaft 25 and basket 22 and locking lid 20 when the speed is above a predetermined speed (col. 5, line 39 – col. 6, line 6), locking with a control circuit 64 by energizing a lid lock solenoid (actuator 120) and unlocking/deenergizing the lid lock when the speed falls below a predetermined speed (col. 5, lines 47-52; col. 6, lines 3-9).

Re claims 3-4 & 13, CHAMBERLIN further discloses the washing machine having a drive shaft extending from a clutch system 28, at least one magnet (magnetizable counterweight 30, screws 31 and/or brake plate 34) and a sensor 60/70, and generating a voltage signal from a frequency signal from the sensor using a frequency to voltage converter (col. 5, lines 45-54) (see also Figure 2 and relative associated text). Re claims 14-15 & 17, CHAMBERLIN discloses the claimed washing machine structure (cited above).

***Claim Rejections - 35 USC § 103***

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
8. Claims 10-12 & 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over CHAMBERLIN in view of HUANG. Recitation of CHAMBERLIN is repeated here from above. Although CHAMBERLIN implicitly discloses “flip flop” circuitry (binary logic circuitry, col. 5, lines 47-52) and a timer (circuit 64 sensing signals over time, col. 4, lines 18-21), CHAMBERLIN does not expressly disclose a rotary drive speed sensing circuitry including a flip flop with a timer and a Hall sensor. HUANG teaches that it is known to provide a DC brushless motor (well known in the art as a conventional

Art Unit: 1746

washing machine motor) with a Hall sensor and a flip flop to sense rotor position for advantages such as "increased reliability, wider temperature operating range, etc. in a cost effective manner, i.e. without having to replace the entire existing motor drive." (see, for instance, col. 2, lines 4-14 of Huang). Therefore, the position is taken that a person of ordinary skill in the art at the time the invention was made would have been motivated to modify the washing machine of CHAMBERLIN with the Hall sensor of HUANG for the aforementioned improvements.

### ***Conclusion***

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

10. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph L. Perrin, Ph.D. whose telephone number is

(571)272-1305. The examiner can normally be reached on M-F 7:00-4:30, except alternate Fridays.

12. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael E. Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

13. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Joseph L. Perrin, Ph.D.  
Examiner  
Art Unit 1746

jlp